Claims:

1. A method for manufacturing a nano-particulate electrode for Dye Solar Cells including the steps of providing an electrically conductive substrate, formation of a nanoparticulate layer on the substrate, application of dye to the nanoparticulate layer and an additional step of electrolytic treatment of the nanoparticulate layer in an electrolyte.
2. A method according the claim 1, wherein the electrolyte contains ions chemically different to the nano-particulate layer and the said electrolytic treatment comprises transfer of material from the electrolyte in the form of ions into the surface of the nano-particulate layer resulting in formation of a barrier layer, electronic properties of which differ from that of the original nano-particulate layer.
3. A method according to claim 2, wherein the said electrolytic treatment is followed by heating to ensure stable bonding of the barrier layer to the nano-particulate layer.
4. A method according to claim 1, wherein the said electrolytic treatment comprises partial removal of material from the nanoparticulate layer to the electrolyte.
5. A method according to claim 1, wherein the electrolyte contains ions of UV, visual light and/or Infra red absorbing material.
6. A method according to claim 4, wherein the absorbing material is dye.
7. A method according to any of the preceding claims

wherein the nano-particulate layer comprises a metal or mixed metal oxide.

8. A method according the claim 7, wherein the metal oxide is titanium dioxide.

9. A method for manufacturing nanoparticulate electrode for DSC including the steps of providing a substrate, electrolytic deposition of the nanoparticulate layer from an electrolyte and application of dye to the nanoparticulate layer.

10. A method according to any of the preceding claims wherein the electrolytic treatment includes at least one step of transfer of a predetermined amount of electrical charge between the electrolyte and the nanoparticulate layer.

11. A method according to claim 10, wherein the charge is transferred under constant current conditions with imposed voltage limits, such as when voltage reaches the imposed limit a control circuitry switches from the constant current to the constant voltage mode, keeping the constant voltage mode until either the current drops below a predetermined current value or the predetermined amount of electrical charge has passed between the electrolyte solution and the nanoparticulate electrode.

12. A method according to claim 10 and claim 11 wherein the electrolytic treatment includes at least 2 subsequent steps (half-cycles), each transferring the predetermined amount of charge; in the first half-cycle the charge is transferred by movement of ions from the electrolyte to the nanoparticulate layer, in the second half-cycle - from the nanoparticulate layer to the electrolyte.

13. A method according to claim 12, wherein the

electrolytic treatment includes at least 2 cycles and predetermined charge in the second cycle is larger than that in the first cycle.